IN THE CLAIMS:

Pending Claims

Claims 1-32 (Canceled).

Claim 33 (New): A method for processing annotated images comprising the following steps:

acquiring data representing a grayscale image;

adding data representing a textual annotation to said acquired grayscale image data;

displaying an annotated grayscale image comprising said grayscale image with said textual annotation overlaid thereon;

storing data representing said annotated grayscale image in the data format used for said displaying step;

removing data representing said textual annotation from said stored data representing said annotated grayscale image to derive data representing an unannotated grayscale image;

processing said data representing said unannotated grayscale image using an algorithm to derive data representing a processed grayscale image; and

merging said removed data representing said textual annotation and said data representing said processed grayscale image, said merged data representing an annotated processed grayscale image.

Claim 34 (New): The method as recited in claim 33, wherein said removing step comprises the following: deriving data representing a first binary mask defining one or more image regions; and multiplying said data representing said first binary mask and said data representing said annotated grayscale image to derive said unannotated grayscale image.

Claim 35 (New): The method as recited in claim 34, wherein said merging step comprises the following: inverting said data representing said first binary mask to derive data representing a second binary mask defining one or more annotation regions; multiplying said data representing said second binary mask and said data representing said annotated grayscale image to derive data representing a modified image; and merging said data representing said modified image and said data representing said processed grayscale image to derive said data representing said annotated processed grayscale image.

Claim 36 (New): The method as recited in claim 33, wherein the merged textual annotations occupy the same pixels in said annotated processed grayscale image that the removed textual annotations originally occupied in said annotated grayscale image.

Claim 37 (New): The method as recited in claim 33, wherein said removing step comprises morphology-based processing and thresholding.

Claim 38 (New): The method as recited in claim 33, wherein said removing step comprises the following: grayscale erosion of said data representing said annotated grayscale image using a structuring element to derive data representing an eroded grayscale image; thresholding said data representing said eroded grayscale image to derive data representing a first binary mask; dilation of said data representing said first binary mask using said structuring element to derive data representing a second binary mask defining one or more image regions; and multiplying said data representing said second binary mask and said data representing said annotated grayscale image to derive said data representing said image.

Claim 39 (New): The method as recited in claim 38, wherein said merging step comprises the following: inverting said data representing said second binary mask to derive data representing a third binary mask defining an annotation region;

multiplying said data representing said third binary mask and said data representing said annotated grayscale image to derive data representing a modified image; and merging said data representing said modified image and said data representing said processed grayscale image to derive said annotated processed grayscale image.

Claim 40 (New): The method as recited in claim 33, wherein said removing step comprises thresholding and pixel connectivity-based analysis.

Claim 41 (New): The method as recited in claim 33, wherein said removing step comprises the following: thresholding said data representing said annotated grayscale image to derive data representing a first binary mask; using 8-connected analysis to reject segments smaller than a prespecified size from said first binary mask to derive data representing a second binary mask defining one or more image regions; and multiplying said data representing said second binary mask and said data representing said annotated grayscale image to derive said data representing said unannotated grayscale image.

Claim 42 (New): The method as recited in claim 41, wherein said merging step comprises the following: inverting said data representing said second binary mask to derive data representing a third binary mask defining an annotation region; multiplying said data representing said third binary mask and said data representing said annotated grayscale image to derive data representing a modified image; and merging said data representing said modified image and said data representing said processed grayscale image to derive said data representing said annotated processed grayscale image.

Claim 43 (New): The method as recited in claim 33, wherein said removing step comprises the following: thresholding said data representing said annotated grayscale image to derive data representing a first binary mask; using 8-

connected analysis to reject segments smaller than a prespecified size from said first binary mask to derive data representing a second binary mask defining one or more image regions; removing holes from said data representing said second binary mask to derive data representing a third binary mask; and multiplying said data representing said third binary mask and said data representing said annotated grayscale image to derive said data representing said unannotated grayscale image.

Claim 44 (New): The method as recited in claim 33, wherein said processing step comprises filtering to enhance said modified image.

Claim 45 (New): A method for processing annotated images comprising the following steps:

acquiring data representing a HSV color image;

adding data representing a textual annotation to said acquired HSV color image data;

displaying an annotated HSV color image comprising said HSV color image with said textual annotation overlaid thereon;

storing data representing said annotated HSV color image in the data format used for said displaying step;

removing data representing the hue and saturation components from said data representing said annotated HSV color image to derive data representing an annotated brightness component image;

removing data representing said textual annotation from said stored data representing said annotated brightness component image to derive data representing an unannotated brightness component image;

processing said data representing said unannotated brightness component image using an algorithm to derive data representing a processed brightness component image; and

merging said removed data representing said textual annotation and said removed data representing said hue and saturation components with said data representing said processed brightness component image, said merged data representing an annotated processed HSV color image.

Claim 46 (New): The method as recited in claim 45, wherein said textual annotation removing step comprises the following: deriving data representing a first binary mask defining one or more image regions; and multiplying said data representing said first binary mask and said data representing said annotated brightness component image to derive said unannotated brightness component image.

Claim 47 (New): The method as recited in claim 46, wherein said merging step comprises the following: inverting said data representing said first binary mask to derive data representing a second binary mask defining one or more annotation regions; multiplying said data representing said second binary mask and said data representing said annotated brightness component image to derive data representing a modified image; and merging said data representing said modified image and said data representing said processed brightness component image with said removed data representing said hue and saturation components to derive said data representing said annotated processed HSV color image.

Claim 48 (New): The method as recited in claim 45, further comprising the step of converting an annotated RGB color image from RGB color space to HSV color space to derive said annotated HSV color image.